



in the claims:

Please amend the claims as follows:

Claims 1-25 (Canceled)

26. (**Currently Amended**) A transgenic *D. melanogaster* comprising a transgene containing a plurality of CAG's and at least one CAA sequence encoding a polyglutamine repeat sequence, wherein the repeat comprises at least 100 contiguous glutamine residues, and wherein the transgene produces polyglutamine toxicity in the transgenic *D. melanogaster*.

27-28 (Canceled)

29. (Previously Amended) The *D. melanogaster* of claim 26, wherein the number of CAG's to CAA's is in ratio of between about 1:1 and 2:1.

30. (Previously Amended) The *D. melanogaster* of claim 26, wherein the number of CAG's to CAA's is in ratio of between about 2:1 and 5:1.

31. (Previously Amended) The *D. melanogaster* of claim 26, wherein the number of CAG's to CAA's is in ratio of between about 5:1 and 10:1.

32. (Previously Amended) The *D. melanogaster* of claim 26, wherein the number of CAG's to CAA's is in ratio of between about 10:1 and 50:1.

33. (Previously Amended) The *D. melanogaster* of claim 26, wherein expression of the polyglutamine sequence is conferred by a constitutive, regulatable or tissue specific expression control element.

34. (Previously Amended) The *D. melanogaster* of claim 33, wherein the tissue specific expression control element confers neural, retinal, muscle or mesoderm cell expression.

35. (Previously Amended) The *D. melanogaster* of claim 33, wherein the tissue specific expression control element comprises an Appl or rhodopsin 1 promoter or GLASS transcription factor element.

Claim 36 (**Canceled**)

37. (**Currently Amended**) The *D. melanogaster* of claim 26, wherein the polyglutamine sequence is between about ~~50 and~~ 100 and 150 amino acids in length.

38. (Previously Amended) The *D. melanogaster* of claim 26, wherein the polyglutamine sequence is between about 100 and 200 amino acids in length.

39. (**Currently Amended**) The *D. melanogaster* of claim 26, wherein the polyglutamine sequence is between about ~~50~~ 100 and ~~200~~ 250 amino acids in length.

40. (Previously Amended) The *D. melanogaster* of claim 26, wherein the polyglutamine sequence further comprises a tag.

Claim 41 (**Canceled**)

42. (Previously Amended) The *D. melanogaster* of claim 26, wherein the *Drosophila* further comprises a marker sequence inserted into its genomic DNA, wherein the marker is located adjacent to a gene or inserted into a gene whose expression or activity increases or decreases polyglutamine toxicity in the animal, and wherein the marker sequence comprises an inducible upstream activating sequence, a minimal promoter sequence and 5' and 3' P transposon elements containing terminal inverted repeats.

43. (Previously Amended) The *D. melanogaster* of claim 42, wherein the marker sequence is near or inserted into a gene containing a J domain.

44. (Previously Amended) The *D. melanogaster* of claim 43, wherein the gene is HDJ1.

45. (Previously Amended) The *D. melanogaster* of claim 43, wherein the gene is TPR2.

46. (Previously Amended) The *D. melanogaster* of claim 43, wherein the marker sequence is near an MLF gene.

47-49 (Withdrawn)

50. (Previously Amended) A method of producing a transgenic *D. melanogaster* characterized by suppressed polyglutamine toxicity comprising:

- (a) transforming a *D. melanogaster* embryo or fertilized egg with a transgene comprising a plurality of CAA and CAG sequences encoding a polyglutamine sequence comprising at least 100 contiguous glutamine residues; and
- (b) selecting a *D. melanogaster* that exhibits polyglutamine toxicity.

51-79 (Withdrawn)